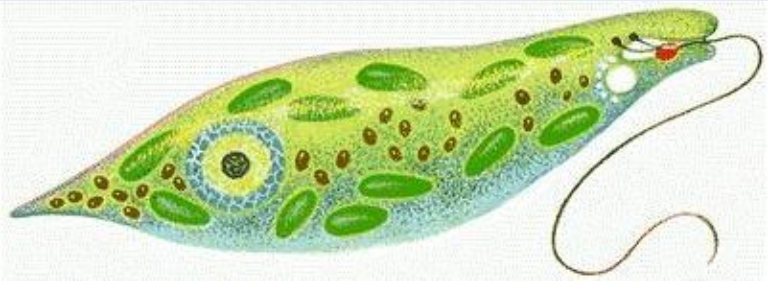
Unicellular and Multicellular Organisms



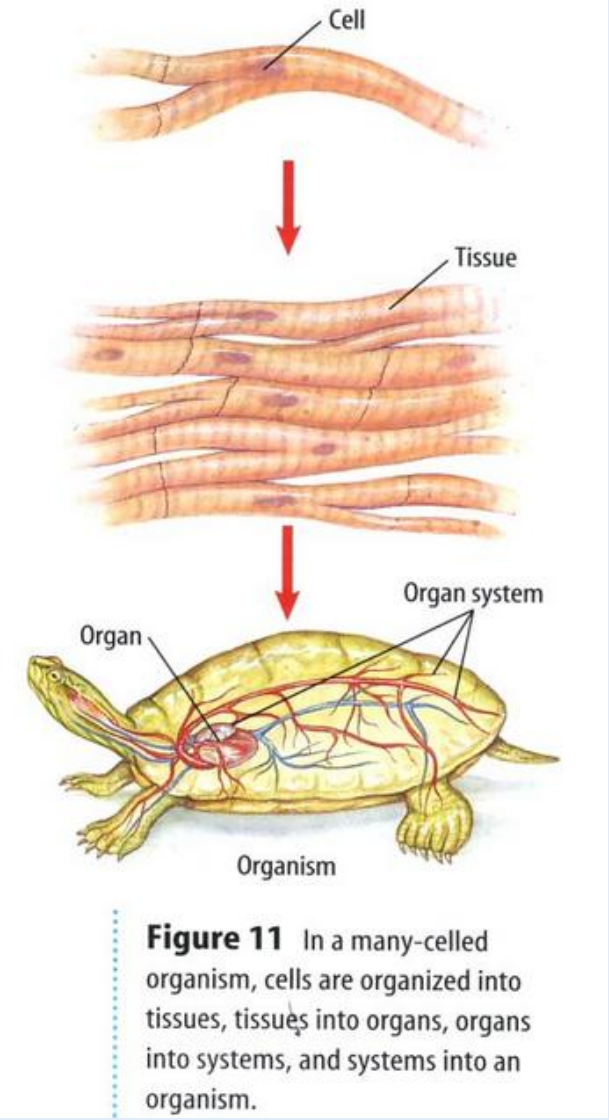
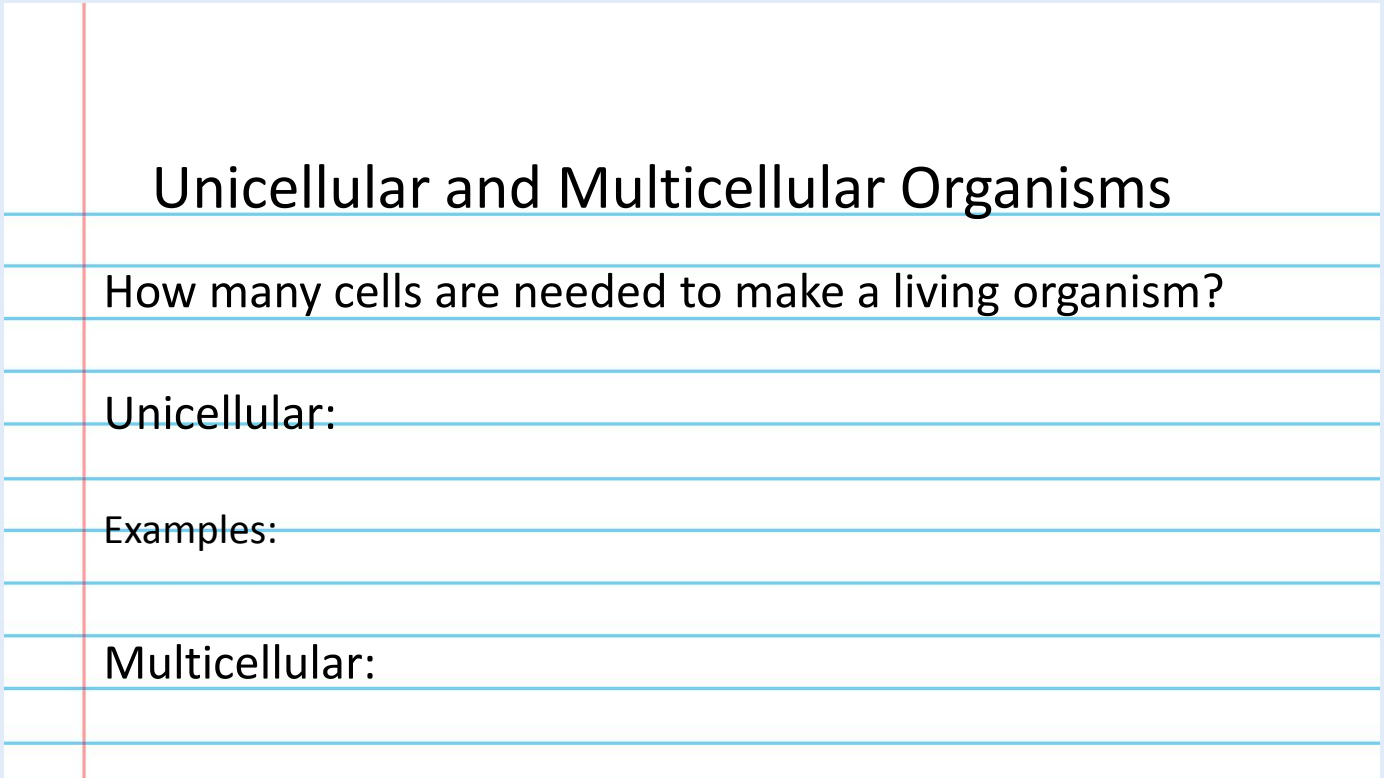


Figure 11 In a many-celled organism, cells are organized into tissues, tissues into organs, organs into systems, and systems into an organism.

In your science notebook …

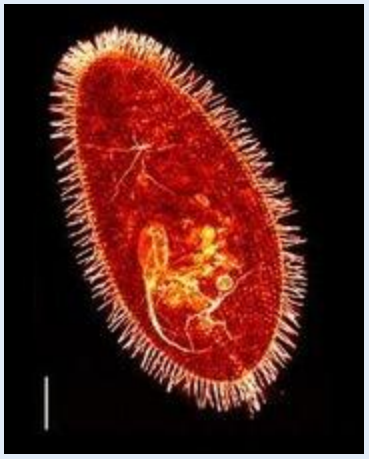
- Title the page "Unicellular and Multicellular"
- You will write the definitions and the examples on the next few slides (the words in red)
- Start your page like this:



Fundamental Questions

How many cells are all living organisms are composed of?

- All living organism are composed of one or more cells. They are classified as either **unicellular** or **multicellular** organisms.



Paramecium

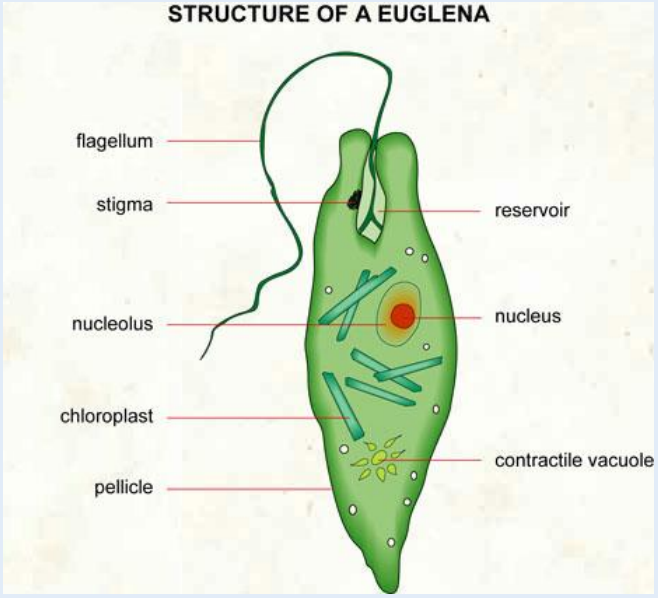
dog

Unicellular

Unicellular: made of only one cell (single-celled organism).

- Examples:

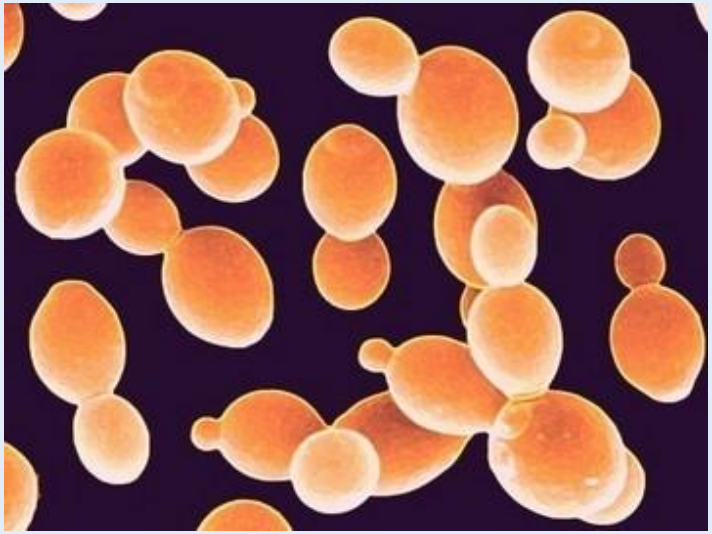
Euglena



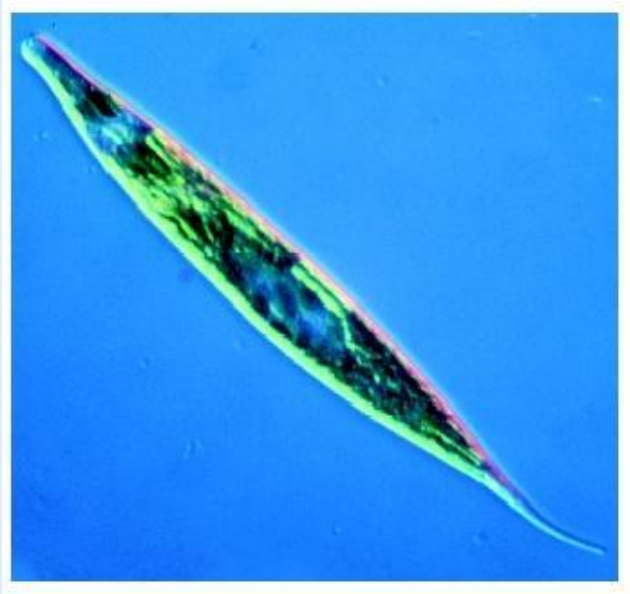
Paramecium

Examples of Unicellular Life

Unicellular fungi (yeast)



Bacteria

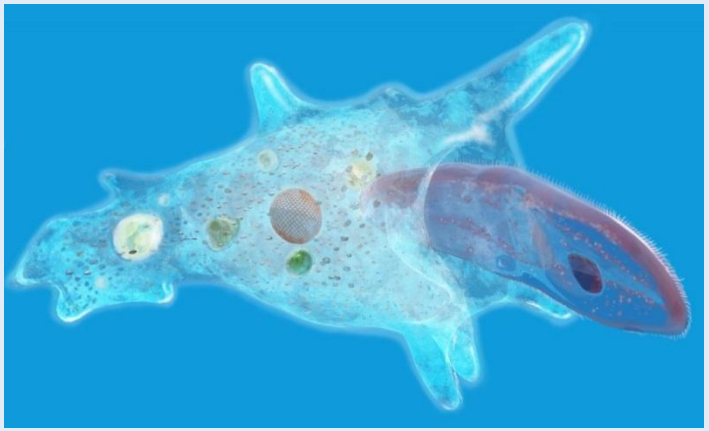


Euglena – a unicellular algae (a protozoa)

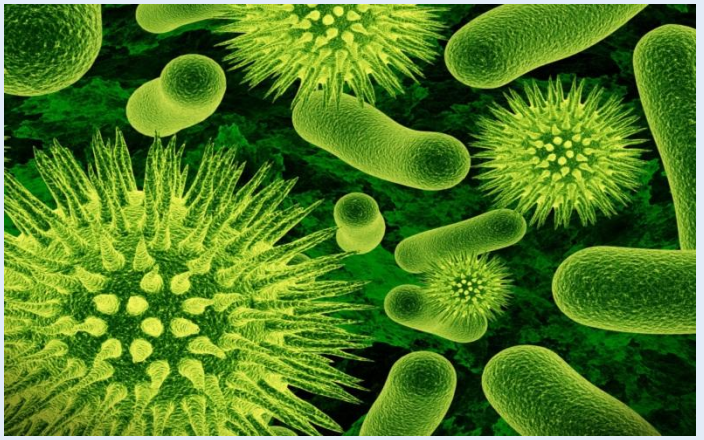
Unicellular

How they get energy:

1. Eat other organisms
2. Make their own food using chloroplasts like plants
3. Eat decomposed organic material



http://www.youtube.com/watch?v=pvOz4V699gk



http://www.youtube.com/watch?v=a4aZE5FQ284

Unicellular

How they reproduce:

1. Asexually through cell division

http://www.youtube.com/watch?v=DY9DNWcqxI4

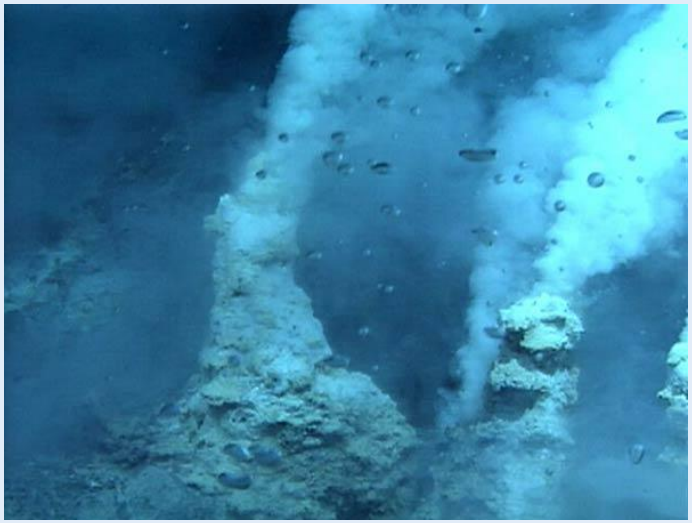
- http://www.youtube.com/watch?v=5Xi2Nc1UicQ

Environment they live in:

1. mainly live in a watery environment so they can move around and survive
2. can also live in extreme environments

What are extreme environments?

1. Deep sea vents



2. VERY salty water

3. Geysers

Think about the abiotic factors at work in these extreme environments!

Multicellular

Multicellular: made up of more than one cell

- Examples:

apple tree manatee bumblebee

Multicellular

- These cells are differentiated (meaning they have different jobs) in order to perform specific functions

How they get energy:

1. Autotrophic: makes its own food
2. Heterotrophic: get energy they need by consuming (eating) other organisms



Multicellular

How they reproduce:

1. Sexual (2 parents are needed)
2. Asexual (1 parent needed)

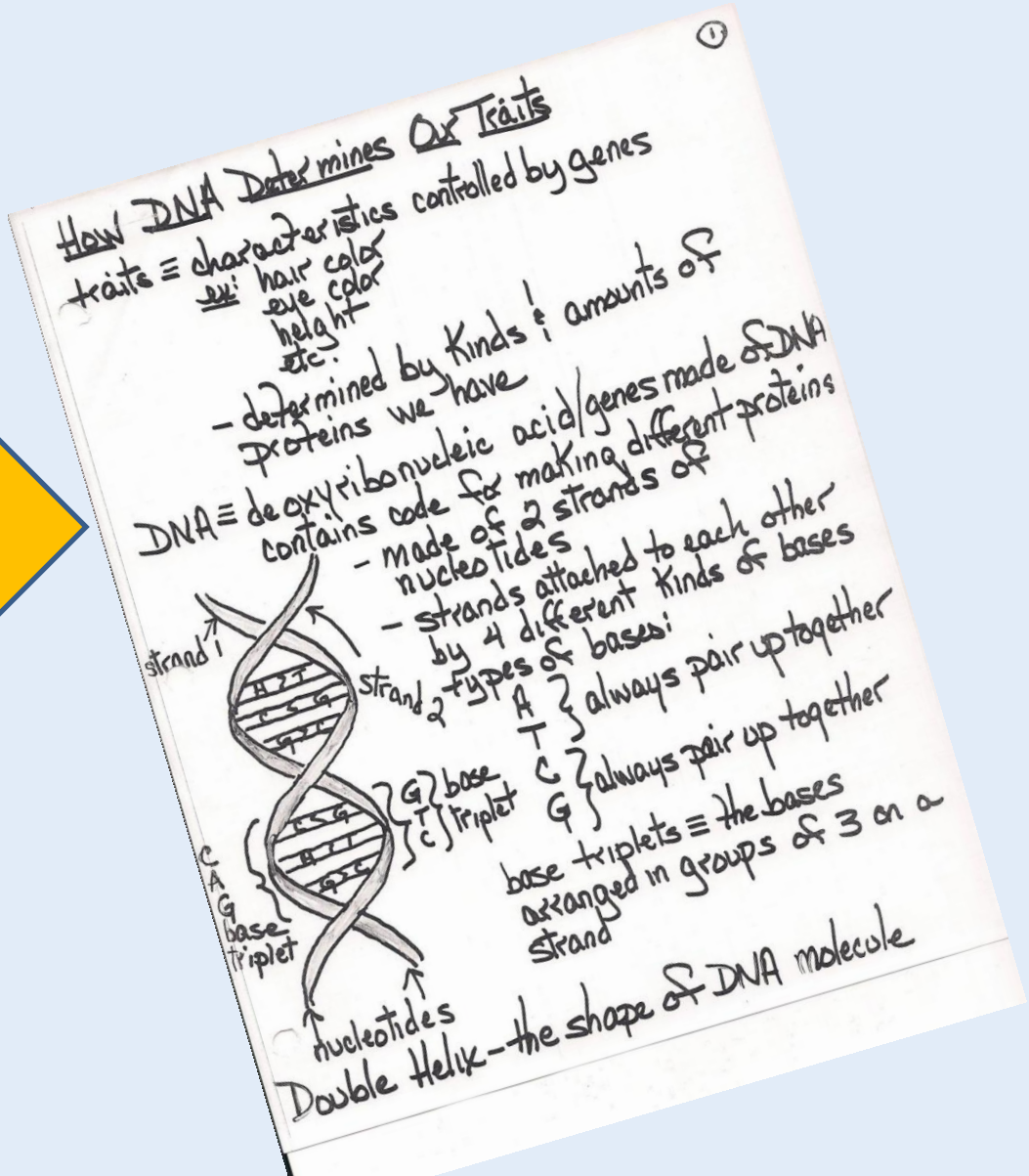
http://www.youtube.com/watch?v=489CSop00sY&list=PL8BA741DBA519C524

Environment they live in: almost everywhere in the world, very few exist in extreme environments.

Examples of Multicellular Life

- Humans, birds, reptiles, amphibians, plants, fungi, insects, etc. – most of the creatures you already know are multi-cellular!

Check to make sure your notes are complete



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dog

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- Examples:

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manatee

bumblebee

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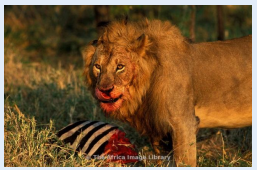

How multicellular organisms reproduce:

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Environment multicellular organisms live in: almost everywhere in the world, very few exist in extreme environments

Other examples of multicellular organisms include: humans, birds, reptiles, plants, fungi, insects, etc. – most of the creatures you already know are multi-cellular!